

WE CLAIM:

1. A color liquid crystal panel characterized in that:

said color liquid crystal panel comprises on one substrate of a pair of substrates which sandwich liquid crystal,

thin-film transistor elements arranged in a matrix shape in correspondence with pixels;

a wiring portion of said thin-film transistor elements;

a pixel electrode connected to said wiring portion; and

a color filter layer formed between said pixel electrode and an inorganic insulating layer for covering said wiring portion of said thin-film transistor elements,

said color filter layer includes a lower light-transmission flatted layer and a primary-color-type colored filter pattern, and is provided an opening through which a connection portion of said wiring portion of said thin-film transistor elements and said pixel electrode is penetrated; and

a common electrode commonly used for plural pixels is formed on the other substrate.

2. A color liquid crystal panel characterized in that:

said color liquid crystal panel comprises on one substrate of a pair of substrates which sandwich

liquid crystal,

thin-film transistor elements arranged in  
a matrix shape in correspondence with pixels;

a wiring portion of said thin-film  
transistor elements;

a pixel electrode connected to said  
wiring portion; and

a color filter layer formed between said  
pixel electrode and an inorganic insulating layer for  
covering said wiring portion of said thin-film  
transistor elements,

said color filter layer includes a lower  
light-transmission flattened layer, a primary-color-type  
colored filter pattern and an upper light-transmission  
protection layer, and is provided with an opening  
through which a connection portion of said wiring  
portion of said thin-film transistor elements and said  
pixel electrode is penetrated; and

a common electrode commonly used for plural  
pixels is formed on the other substrate.

3. A color liquid crystal panel characterized in  
that:

said color liquid crystal panel comprises on  
one substrate of a pair of substrates which sandwich  
liquid crystal,

thin-film transistor elements arranged in  
a matrix shape in correspondence with pixels;

a wiring portion of said thin-film

transistor elements;

a pixel electrode connected to said wiring portion; and

a color filter layer formed between said pixel electrode and an inorganic insulating layer for covering said wiring portion of said thin-film transistor elements,

said color filter layer includes a lower light-transmission flatted layer and a primary-color-type colored filter pattern, and is provided an opening through which a connection portion of said wiring portion of said thin-film transistor elements and said pixel electrode is penetrated;

a common electrode commonly used for plural pixels is formed on the other substrate;

said pixel electrode is driven by said thin-film transistor elements in response to an image signal; and

said liquid crystal is driven by a voltage applied between said pixel electrode and said common electrode to form an image.

4. A color liquid crystal panel characterized in that:

said color liquid crystal panel comprises on one substrate of a pair of substrates which sandwich liquid crystal,

thin-film transistor elements arranged in a matrix shape in correspondence with pixels;

a wiring portion of said thin-film transistor elements;

a pixel electrode connected to said wiring portion; and

a color filter layer formed between said pixel electrode and an inorganic insulating layer for covering said wiring portion of said thin-film transistor elements,

said color filter layer includes a lower light-transmission flatted layer, a primary-color-type colored filter pattern and an upper light-transmission protection layer, and is provided with an opening through which a connection portion of said wiring portion and said pixel electrode is penetrated; and

a common electrode commonly used for plural pixels is formed on the other substrate;

said pixel electrode is driven by said thin-film transistor elements in response to an image signal; and

said liquid crystal is driven by a voltage applied between said pixel electrode and said common electrode to form an image.

5. A color liquid crystal panel as claimed in claim 1 characterized in that:

said lower light-transmission flatted layer and said primary-color-type colored pattern are made of photosensitive resin.

6. A color liquid crystal panel as claimed in

claim 2 characterized in that:

said lower light-transmission flatted layer, said primary-color-type colored pattern and said upper light-transmission protection layer are made of photosensitive resin.

7. A color liquid crystal panel as claimed in claim 3 characterized in that:

said lower light-transmission flatted layer and said primary-color-type colored pattern are made of photosensitive resin.

8. A color liquid crystal panel as claimed in claim 4 characterized in that:

said lower light-transmission flatted layer, said primary-color-type colored pattern and said upper light-transmission protection layer are made of photosensitive resin.

9. A color liquid crystal panel as claimed in claim 2 characterized in that:

said lower light-transmission flatted layer and said upper light-transmission protection layer are made of thermosetting resin.

10. A color liquid crystal panel as claimed in claim 4 characterized in that:

said lower light-transmission flatted layer and said upper light-transmission protection layer are made of thermosetting resin.

11. A color liquid crystal panel as claimed in claim 1 characterized in that:

said lower light-transmission flattened layer is a polyimide film in which a polyimide precursor whose molecular terminal is end-capped is imidized by heat-curing.

12. A color liquid crystal panel as claimed in claim 2 characterized in that:

said lower light-transmission flattened layer is a polyimide film in which a polyimide precursor whose molecular terminal is end-capped is imidized by heat-curing.

13. A color liquid crystal panel as claimed in claim 3 characterized in that:

said lower light-transmission flattened layer is a polyimide film in which a polyimide precursor whose molecular terminal is end-capped is imidized by heat-curing.

14. A color liquid crystal panel as claimed in claim 4 characterized in that:

said lower light-transmission flattened layer is a polyimide film in which a polyimide precursor whose molecular terminal is end-capped is imidized by heat-curing.

15. A color liquid crystal display apparatus as claimed in claim 3 characterized in that:

an external electrode terminal provided every wiring is covered with said inorganic insulating layer, is covered with at least one of said lower light-transmission flattened layer and said upper light-

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transmission protection layer, and is provided on a substrate which has an opening for exposing said external electrode terminal portion.

16. A color liquid crystal display apparatus as claimed in claim 4 characterized in that:

an external electrode terminal provided every wiring is covered with said inorganic insulating layer, is covered with at least one of said lower light-transmission flatted layer and said upper light-transmission protection layer, and is provided on a substrate which has an opening for exposing said external electrode terminal portion.

17. A color liquid crystal display apparatus characterized in that:

on one substrate of a pair of substrates which sandwich liquid crystal,

thin-film transistor elements arranged in a matrix shape in correspondence with pixels;

a pixel electrode connected to a wiring portion of said thin-film transistor elements;

a common electrode arranged substantially parallel to a longitudinal direction of said pixel electrode and also along a direction substantially equal to a plane direction, and commonly used to plural pixels; and

a color filter layer formed among said common electrode, said pixel electrode and an inorganic insulating layer for covering said wiring portion of

said thin-film transistor elements, and including a lower light-transmission flatted layer and a primary-color-type colored pattern, are formed;

said pixel electrode is driven by said switching element in response to an image signal; and

said liquid crystal is driven by a voltage applied between said pixel electrode and said common electrode to form an image.

18. A color liquid crystal display apparatus as claimed in claim 17 characterized in that:

said lower light-transmission flatted layer, said primary-color-type colored pattern and said upper light-transmission protection layer are made of photosensitive resin.

19. A color liquid crystal display apparatus as claimed in claim 17 characterized in that:

said lower light-transmission flatted layer and said upper light-transmission protection layer are made of thermosetting resin.

20. A color liquid crystal panel as claimed in claim 17 characterized in that:

said lower light-transmission flatted layer is a polyimide film in which a polyimide precursor whose molecular terminal is end-capped is imidized by heat-curing.